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A faunistic review of the spider family Philodromidae (Aranei) of Azerbaijan

Фаунистический обзор пауков семейства Philodromidae (Aranei) Азербайджана

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KEY WORDS: Philodromidae, Azerbaijan, Armenia, annotated checklist, new species.
КЛЮЧЕВЫЕ СЛОВА: Philodromidae, Азербайджан, Армения, аннотированный список, новые виды.

ABSTRACT. This paper presents an annotated checklist of the Philodromidae of Azerbaijan which includes 22 species of three genera. *Thanatus constellatus* Charitonov, 1946 is first synonymized with *Paratibellus oblongiusculus* (Lucas, 1846) [= *Thanatus o.*]. The genus *Paratibellus* Simon, 1932 is synonymized with *Thanatus* C.L. Koch, 1837. Two species, *Philodromus azcursor* sp.n. (♂♀, from Ismailly and Zagatala Reserves) and *P. naxcivanicus* sp.n. (♀, from Naxçivan), are described as new. Five species, viz. *Philodromus longipalpis* Simon, 1870, *P. margaritatus* (Clerck 1757), *P. medius* O. Pickard-Cambridge, 1872, *P. praedatus* O. Pickard-Cambridge, 1871 and *Thanatus sabulosus* (Menge, 1875), are first reported for the Azerbaijani fauna, whereas seven previously recorded species and one subspecies are excluded from the list. Additional new records from the near or neighbouring countries, particularly from Greece, Turkey and Kazakhstan, are presented for 15 species. Finally, a new species, *Philodromus rikhteri* sp.n. (♀) is described from Armenia (Yerevan).

РЕЗЮМЕ. Работа представляет собой аннотированный список видов Philodromidae Азербайджана, насчитывающий 22 вида из 3 родов. *Thanatus constellatus* Charitonov, 1946 впервые синонимизирован с *Paratibellus oblongiusculus* (Lucas, 1846) [= *Thanatus o.*]. Род *Paratibellus* Simon, 1932 синонимизирован с *Thanatus* C.L. Koch, 1837. Два вида описываются как новые для науки: *Philogromus azcursor* sp.n. (♂♀, из Исмаиллинского и Закатальского заповедников) и *P. naxcivanicus* sp.n. (♀, из Нахичевани). Пять видов, а именно *Philodromus longipalpis* Simon, 1870, *P. margaritatus* (Clerck, 1757), *P. medius* O. Pickard-Cambridge, 1872, *P. praedatus* O. Pickard-Cambridge, 1871 и *Thanatus sabulosus* (Menge, 1875), впервые отмечаются для азербайджанской фауны, тогда как семь видов и один подвид, из ранее указанных, исключены из списка. Для пятнадцати видов также приводятся дополнительные новые материалы из прилегающих стран, преимущественно из Турции, Греции и Казахстана. Кроме того, описан один новый для науки вид, *Philodromus rikhteri* sp.n. (♀) из Армении (Ереван).

Introduction

The first data on Philodromidae of Azerbaijan were published at the end of XIX century by Kulczyński [1895], who reported on *Tibellus oblongiusculus* (Lucas, 1846) (= *Thanatus o.*) from the north-west part of the country. Fourty years later, Charitonov [1936] recorded two additional species and one subspecies from the vicinity of Gyanja (central Azerbaijan): viz., *P. oblongiusculus atomarius* Simon, 1932, *Philodromus aureolus* (Clerck, 1757) and *Tibellus oblongus* (Walckenaer, 1802). Over thirty years later one more species, *Tibellus maritimus* (Menge, 1875), was added by Atakishiev [1969] to the list of the Azerbaijani philodromids. Subsequent contributions to the knowledge of Philodromidae of Azerbaijan were made by P.M. Dunin [1984], who listed six species for the Absheron peninsula, of which four were new for the fauna: viz., *Thanatus arenarius* L. Koch, 1872, *T. meronensis* Levy, 1977, *T. pictus* L. Koch, 1881 and *T. vulgaris* Simon, 1870. Of them, the record of *T. meronensis* was later suggested to be mistaken and to belong to *T. imbecillus* L. Koch, 1878 [Lyakhov, 2000: p. 223]. In the later

[1]The name of the second author can be spelled out in English in two ways: E.F. Guseinov in his earlier works, and E.F. Huseynov at present.

work by Dunin [1989] devoted to the Sheki-Zagatala area nine species were reported, with five being new records to Azerbaijan: viz., *Philodromus cespitum* (Walckenaer, 1802), *P. dispar* Walckenaer, 1826, *P. emarginatus* (Schranck, 1803), *P. constellatus* Simon, 1875 (= *P. fuscolimbatus* Lucas, 1846) and *P. rufus* Walckenaer, 1826. Afterwards, one additional species (i.e., *Philodromus glaucinus* Simon, 1870) was found in the Muganskaya steppe [Dunin & Mamedov, 1992]. During the last decade, one of us (EH) has been intensively studying fauna and biology of the philodromid spiders of Azerbaijan [Guseinov, 1999, 2002, 2004; Guseinov *et al*., 2003; Marusik *et al*., 2005; Huseynov, 2008; Huseynov & Alieva, in press] and has recorded six additional species: viz., *Philodromus fallax* Sundevall, 1833, *P. histrio* Latreille, 1819, *Thanatus fabricii* Audouin, 1826, *T. formicinus* (Clerck, 1757), *T. kitabensis* Charitonov, 1946 and *Tibellus macellus* Simon, 1875; as well as provided data on the feeding ecology of some of these. The most recent finding of the Turanian *Philodromus xinjiangensis* Tang et Song, 1987 was made by Szita & Logunov [2008]. Thus, to date, 21 species (and one subspecies) of four genera of Philodromidae have been reported from Azerbaijan. Yet, some of the earlier records are in need of confirmation (see below).

The main purpose of the present work is to gather both original and literature-derived data on the Azerbaijani Philodromidae and to present them as a revised annotated list of species. A total of 22 species of three genera is given below in alphabetic order, with two species being described as new. An additional new species from Armenia has been included and described. Some additional records from the near or neighbouring countries, particularly from Greece, Turkey and Kazakhstan, are provided under 'Comparative material'.

Specimens for this study were borrowed from and/or deposited in the following museum and institute collections: HUJI — Zoological Department of the Hebrew University of Jerusalem, Israel (Dr. G. Levy); LMNM — Liverpool Museum, National Museums Liverpool, Liverpool, UK (Mr. G. Knight); MMUM — Manchester Museum of University of Manchester, Manchester, UK (Dr. D.V. Logunov); NHMB — Naturhistorisches Museum, Basel, Switzerland (Dr A. Hänggi); OUMNH — Hope Entomological Collection, Oxford, UK (Mr. J. Hogan); PCJK — Personal collection of Mr. Johan Van Keer (Kapelle-Op-Den-Dos, Belgium); PCRB — Personal collection of Dr. Robert Bosmans (Ghent, Belgium); SMFM — Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt am Main, Germany (Dr. P. Jäger); ZISP — Zoological Institute of the Russian Academy of Science, St.-Petersburg, Russia (Dr. V.A. Krivokhatsky); ZMUM — Zoological Museum of the Moscow State University, Moscow, Russia (Dr. K. G. Mikhailov).

The terminology of male and female genital morphology mostly follows Logunov [1996] and Muster & Thaler [2004]. Abbrevations used in the text: a.s.l. — above see level, D — described, Distr. — district, nr. — near, Mt. — mountain. Abbrevations used in the measurement data: AME — anterior median eye, ALE — anterior lateral eye, AME-AME — distance between AMEs, AME-ALE — distance between AME and ALE, Fm — femur, MOA — median ocular area, MOA-WA —anterior width of MOA, MOA-WP — posterior width of MOA, MOA-L — length of MOA, Mt — metatarsus, PME — posterior median eye, PLE — posterior lateral eye, PME-PME distance between PMEs, PME-PLE — distance between PME and PLE, Pt — patella, Tb — tibia. The sequence of leg segments in measurement data is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are in mm. Abbrevations used in defining the position of leg spines: ap — apical, d — dorsal, pr — prolateral, rt — retrolateral, v — ventral. For the leg spination the system adopted is that used by Ono [1988]. Names of two main collectors are abbreviated as follows: EH — E. F. Huseynov; YM — Yu. M. Marusik. The geography and districts of Azerbaijan are shown in Map 1. In the text, each locality is followed by a number in square brackets ([]) which refers to the numbers in Map 2.

With the exception for *Thanatus oblongiusculus*, only regional taxonomic/faunistic references to (under the section 'Earlier records') and the most reliable sources for identification of the studied species (under 'Identification') are given; for a complete set of taxonomic references see Platnick [2008].

Annotated list of species

Philodromus Walckenaer, 1826

Philodromus azcursor **sp.n.**

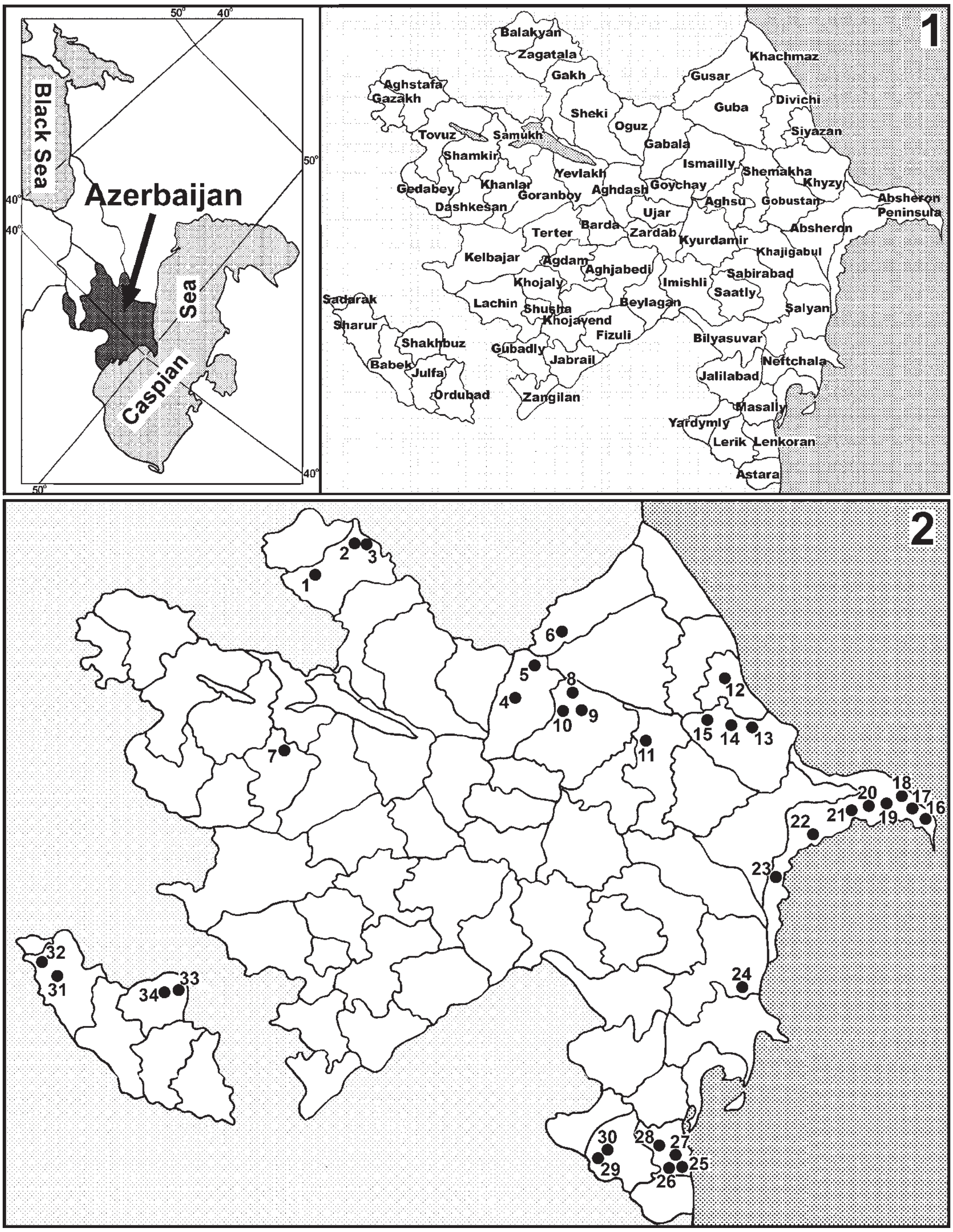
Figs 1–5.

TYPES. Holotype ♂ (ZMUM) from AZERBAIJAN: Ismailly Distr., Ismailly Reserve [9] (40º93'N, 48º01'E), 1000–1500 m a.s.l., 13–14.07.2001, EH. Paratypes: 1 ♂ (SMFM), together with the holotype; 1 ♂ (ZMUM), same distr., Gurban-Efendi [10] (40º81'N, 48º11'E), 700 m a.s.l., 10.07.2001, EH; 1 $ (ZMUM), Zagatala Distr., Rochugel [3], 2500 m a.s.l., 22.06.2003, N.Yu. Snegovaya & H.A. Aliev.

ETYMOLOGY. The name of this new species is derived from '*az*', referring to Azerbaijan (the country of the discovery), and the Latin word '*cursor*', meaning 'runner'.

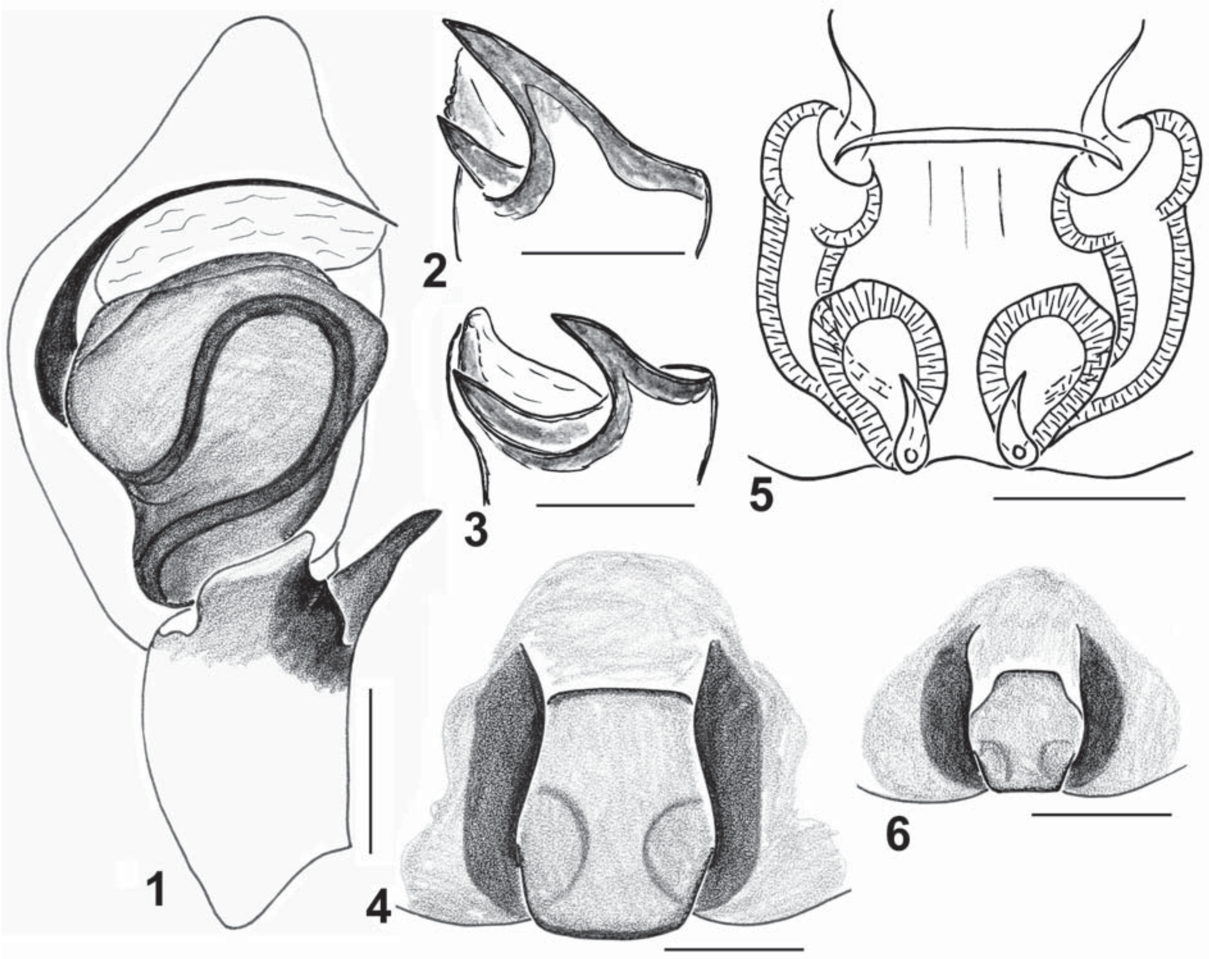
EARLIER RECORDS. Khanlar Distr. (Gyandja [7]) [Charitonov, 1936], 'Sheki-Zagatala area' [Dunin, 1989: sub. both *P. aureolus* and *P. cespitum*], 'Lenkoran area' [Guseinov, 1999: sub. *P. aureolus*], Ismailly Reserve [9] [Guseinov *et al*., 2003: sub. *P. aureolus*], Pirkuli Reserve [11] [Huseynov & Alieva, in press].

COMPARATIVE MATERIAL. *Philodromus aureolus*: UK: 2 ♂♂, 1 ♀ (MMUM), Dorset, Swanage, Durlston, 15.06.1977, D. W. Mackie; 1 ♀ (MMUM), Suffolk, Hollesley Heath, 2.09.1951, D. W. Mackie; 1 ♀ (MMUM), Derbyshire, Manifold Valley, 7.06.1959, D. W. Mackie. TURKEY: 1 ♀ (OUMNH), Istanbul, 150 m a.s.l. — Anh, beaten from *Rododendron*, 20.07.1956, G. Lampel. *Philodromus cespitum* (Fig. 6): UK: 1 ♂, 1 ♀ (MMUM), Shropshire, Clarepool Moss, 15.06.1963, D. W. Mackie; 2 ♀♀ (MMUM), Cheshire, Newchurch Common, 25.05.1971, D. W. Mackie; 1 ♂, 1 ♀ (MMUM), 'G.L.M.R.' (no exact locality and date); 2 ♂♂, 9 ♀♀ (MMUM), 'Tensmuin Dunes. E.fe./No504270, 6/66 8c. 12a' (no date and the name of collector). TURKEY: 1 ♀ (OUMNH), Trabzon, Hamocköy, 1250 m a.s.l., 26.08.1958, G. Lampel; 1 ♀ (LMNM), Isparta, Kovada Gölü, sparsely vegetated lakeside shingle, 20.06.1993, C. Felton.



Maps 1–2. The districts of Azerbaijan (1) and regional localities of Philodromidae (2) (both original and literature-derived data): 1 — Uzuntala; 2 — Zagatala Reserve; 3 — Rochugel; 4 — Bum; 5 — Laza (Gabala d-t); 6 — Laza (Gusar d-t); 7 — Gyandja; 8 — Khamash; 9 — Ismailly Reserve; 10 — Gurban-Efendi; 11 — Pirkuli Reserve; 12 — Galaalty; 13 — c. 12 km W. of Kilyazi; 14 — Dizyavyar; 15 — Yarymja; 16 — Gyurgyan; 17 — Gres; 18 — Mardakyan; 19 — Bina; 20 — Yeni-Surakhany; 21 — Baku, Bailov Park, Ganly-Gel Lake; 22 — Kergez Mt.; 23 — Gobustan, stony semedesert, Beyuk-Dash Mt.; 24 — Shirvan Reserve; 25 — Avrora, Alexeevka; 26 — Hyrkan Reserve, near Apo; 27 — Khanbulan; 28 — 25th km of Lenkoran-Lerik Rd.; 29 — Divagatch; 30 — Pirasora; 31 — Dasharkh; 32 — Akhura; 33 — Bichenek, oak forest; 34 — Bichenek, Bichenek River.

Карты 1–2. Районы Азербайджана (1) и региональные локалитеты Philodromidae (2) (оригинальные и литературные данные включительно): 1 — Узунтала; 2 — Закатальский заповедник; 3 — Рочугель; 4 — Бум; 5 — Лаза (Габалинский р-н); 6 — Лаза (Гусарский р-н); 7 — Гянджа; 8 — Хамаш; 9 — Исмаиллинский заповедник; 10 — Гурбан-Эфенди; 11 — Пиркулинский заповедник; 12 — Галаалты; 13 — около 12 км западнее Килязи; 14 — Дизяввяр; 15 — Ярымджа; 16 — Гюргян; 17 — Грес; 18 — Мардакян; 19 — Бина; 20 — Ени-Сураханы; 21 — Баку, Баиловский парк, оз. Ганлы-Гель; 22 — г. Кергез; 23 — Гобустан, каменистая полупустыня, г. Беюк-Даш; 24 — Ширванский заповедник; 25 — Аврора, Алексеевка; 26 — Гирканский заповедник, окрестности Апо; 27 — Ханбулан; 28 — 25-й км дороги Ленкорань-Лерик; 29 — Дивагач; 30 — Пирасора; 31 — Дашарх; 32 — Ахура; 33 — Биченек, дубовый лес; 34 — Биченек, р. Биченек.



Figs 1–6: *Philodromus azcursor* sp.n. (1–5; ♂ and ♀ paratypes) and *P. cespitum* (6; from Shorpshire): 1 — male palp, ventral view; 2 — tibial apophyses, dorso-lateral view; 3 — ditto, retrolateral view; 4, 6 — epigyne, ventral view; 5 — spermathecae, dorsal view. Scale lines: 0.1 mm.

Рис. 1–6: *Philodromus azcursor* sp.n. (1–5; ♂ и ♀ паратипы) и *P. cespitum* (6; из Shorpshire): 1 — пальпа самца, вентрально; 2 — тибиальные отростки, дорзо-латерально; 3 — тоже, латерально; 4, 6 — эпигина, снизу; 5 — сперматека, сверху. Масштаб: 0,1 мм.

DIAGNOSIS. Compared to *P. aureolus* and *P. cespitum* [see Kubcová, 2004a: figs 12–13; Muster & Thaler, 2004: figs 1, 12], the males of new species differ in having the very low intermediate tibial apophysis, which is almost invisible from the ventral view (Fig. 1; in this respect, the new species is quite similar to *P. aureolus*), and in having the poorly marked embolar base (almost not marked), which is well-developed both in *P. aureolus* and in *P. cespitum*. The female of new species possesses the epigyne being visibly (1.5 times) larger than that both of *P. aureolus* and of *P. cespitum* (cf. Figs 4 and 6). From *P. buchari* Kubcová, 2004 [see Kubcová, 2004a: fig. 14; Muster & Thaler, 2004: figs 7, 17a–b], the new species differs in the stronger developed retrolateral tegular projection, the shape of ventral tibial apophysis, the lower intermediate tibial apophysis, the shorter conductor, the longer copulatory ducts (as compared to the size of the receptacles) and the wider median plate of the epigyne, which is almost square (Fig. 4). From *P. longipalpis* Simon, 1870 [see Muster & Thaler, 2004: figs 10, 25a,b], the new species differs in having the narrower and pointed retrolateral tibial apophysis in males (wide and notched at its tip in *P. longipalpis*) and in the absence of the sclerotized arch in females.

DISTRIBUTION. The western part of the Azerbaijani Caucasus Major (Ismailly, Pirkuli and Zagatala Reserves) [present data; Guseinov *et al*., 2003: sub *P. aureolus*; Huseynov & Alieva, in press].

HABITAT. In the Ismailly and Pirkuli Reserves, the species was collected from lower branches of trees in the forest [Guseinov *et al*., 2003: sub *P. aureolus*; Huseynov & Alieva, in press]. In the SE part of Caucasus Major, it was collected from the lowland meadow-forest zone (meadows, bushes and willow-poplar-*Tamarix* stands), the submontane forest-steppes (meadows, bushes and lowland *Quercus-Alnus* forests), low-mountain broad-leaved (*Quercus-Carpinus-Juglans*) and mid-mountain (*Fraxinus-Quercus-Carpinus*) forests [Dunin, 1989: sub *P. aureolus* and *P. cespitum*].

DESCRIPTION. MALE (the holotype). *Measurements*. Carapace 2.18 long, 2.00 wide. Ocular area: MOA-WA 0.29, MOA-WP 0.43, MOA-L 0.31. Eyes and interdistances: AME 0.09, ALE 0.10, PME 0.08, PLE 0.09, AME-AME 0.14, AME-ALE 0.07, PME-PME 0.29, PME-PLE 0.20. Abdomen 2.83 long, 1.58 wide. Chelicera length 0.76. Clypeus height 0.30. Length of leg segments: I 2.95 + 1.18 + 2.83 + 2.83 + 1.75; leg II 3.30 + 1.25 + 3.35 + 3.33 + 1.95; III 2.50 + 0.88 +

2.05 + 1.95 + (Tr is absent on both legs); IV 2.55 + 0.78 + 2.05 + 2.18 + 1.05. *Leg spination* of leg I: Fm d and pr 0-1-1-1, rt 0-1-1-1-1; Pt d and rt 1-0-0, pr 1-0-1; Tb d 1-0-1, pr and rt 1-1-1, v 2-2-0-2ap; Mt d 1-0-0, pr and rt 1-1-1, v 2-2-0. *Colouration*. Carapace light yellowish brownish, with yellow eye field, brown radial veins and V-shaped yellow figure in its centre. Sternum and maxillae yellow. Labium and chelicerae yellowish brownish. Abdomen: dorsum and sides yellowish brownish, venter yellow. Light brown cardiac mark is clearly visible, bordered by white lines merging behind the spot and forming an interrupted white stripe running towards the rear end. Book-lung covers light yellow (almost white). Spinnerets yellowish brownish. All legs and palps yellowish brownish, with no marked rings or patches. Palpal structure as in Figs 1-3.

FEMALE (the paratype). *Measurements*. Carapace 2.70 long, 2.60 wide. Ocular area: MOA-WA 0.36, MOA-WP 0.55, MOA-L 0.39. Eyes and interdistances: AME 0.10, ALE 0.09, PME 0.09, PLE 0.10, AME-AME 0.19, AME-ALE 0.26, PME-PME 0.39, PME-PLE 0.24. Abdomen 3.90 long, 2.75 wide. Chelicera length 1.03. Clypeus height 0.43. Length of leg segments: I 3.15 + 1.38 + 2.65 + 2.35 + 1.30; leg II 3.75 + 1.53 + 3.28 + 2.78 + 1.43; III 2.98 + 1.13 + 2.30 + 2.03 + 1.00; IV 3.00 + 1.03 + 2.25 + 2.10 + 0.98. *Leg spination* of leg I: Fm d, pr and rt 0-1-1-1; Pt d 2-0; Tb d 1-0-1, pr and rt 1-1-1, v 2-2-0-2ap; Mt d 1-0-0, pr and rt 1-1-2, v 2-2-0. *Colouration* as in the male, except as follows: carapace with a well-marked median yellow band, abdomen yellow with contrastingly brown sides. Epigyne and spermathecae as in Figs 4–5.

Philodromus dispar Walckenaer, 1826

Identification: Roberts [1995: p. 170, plate 10]; Almquist [2006: figs 393a–f].

MATERIAL. AZERBAIJAN: 1 ♂, 1 ♀ (SMFM) & 1 ♀ (ZMUM), Lenkoran Distr., Hyrkan Reserve [26] (38º38.5'N, 48º47.5'E), 23.05.2003, EH; 1 ♀ (ZMUM), same distr., nr. Avrora (38º41'N, 48º17'E), 21.05.2003, EH; 1 ♀ (ZMUM), same locality, 36 m a.s.l., 21–29.05.2003, YM; 1 ♀ (ZMUM), same distr., nr. Alexeevka [25] (38º41'N, 48º17'E), 26.04.2001, EH; 2 ♂♂ (ZMUM), Zagatala Distr., Zagatala Reserve [2], 23.06.2003, N.Yu. Snegovaya & H.A. Aliev; 1 ♂, 1 ♀ (ZMUM), Khyzy Distr., Yarymdja [15], 6.06.2000, EH; 2 ♂♂, 1 ♀ (ZMUM), Naxçivan, Shakhbuz Distr., nr. Bichenek [33] (39º31.7'N, 45º46.6'E), 2000 m a.s.l., oak forest, 3.06.2003, YM.

EARLIER RECORDS. 'Sheki-Zagatala area' [Dunin, 1989], 'Lenkoran area' [Guseinov, 1999], Naxçivan (Shakhbuz Distr., Bichenek [33]) [Marusik *et al*., 2005], Pirkuli Reserve [11] [Huseynov & Alieva, in press].

COMPARATIVE MATERIAL. UK: 1 ♂, 1 ♀ (MMUM), Cheshire, Hockenhull Platts N.R., 10.06.1972, D. W. Mackie; 1 ♀ (MMUM), Dorset, Swanage, Durlston, 15.06.1977, D. W. Mackie. – SWITZERLAND: 1 ♂ (NHMB, 337h), Chevenez, Tschafoué, Le Tschafoué, 513 m a.s.l., 4.06.1988, coll.?; 1 ♀ (NHMB, 337i), Porrentruy, Bols de Malavau, 455 m a.s.l., 27.08.1988, coll.?; 16 ♂♂, 21 ♀♀ (NHMB, 337a), nr. Basel (no date and the name of collector).

DISTRIBUTION. It is a common European temperate species [Canard, 2005], the records from Azerbaijan seem to represent the easternmost limits of its natural distribution. *P. dispar* was introduced to North America (British Columbia and Washington State) [Dondale & Redner, 1978].

HABITAT. Both in the forests of the Caucasus Major and in the Hyrcan relic forests, this species was collected by sweeping and beating the lower branches of trees [present data]. In the SE part of the Caucasus Major, the species was collected from the low-mountain broad-leaved (*Quercus-Carpinus-Juglans*) and mid-mountain (*Fraxinus-Quercus-Carpinus*) forests [Dunin, 1989].

Philodromus emarginatus (Schrank, 1803) Figs 7–10.

Identification: Roberts [1995: p. 173]; Almquist [2006: figs 394a–f].

MATERIAL. AZERBAIJAN: 1 ♀ (ZMUM), Absheron, Baku [21] (c. 40°24'N, 49°52'E), 06.10.1994, EH; 3 ♂♂, 1 ♀ (ZMUM), Khyzy Distr., c. 12 km W of Kilyazi [13] (40º52'N, 49º12'E), 260 m a.s.l., relic poplar stand, 7.06.2003, YM & EG; 1 ♀ (ZMUM), Salyan Distr., Shirvan Reserve [24] (c. 39°33'40"N, 49°07'45"E), 28.05.2000, EH.

EARLIER RECORDS. 'Sheki-Zagatala area' [Dunin, 1989].

COMPARATIVE MATERIAL. CZECH REPUBLIC: 1 ♀ (SMFM), Senotin (old area), 14.06.1995, P. Jäger. IRAN: 1 ♂ (SMFM), mountain N of Tehran, Dasht-Nazir, 1000–1300 m a.s.l., 26.05.1978, J. Martens & H. Pieper [this record was published by Ono & Martens, 2004]. KAZAKHSTAN: 1 ♂, 1 ♀ (NHMB), Almaty Region, Alakol Distr., c. 7 km E of Lepsinsk, canyon of Chernaya Rechka river (45º30'N, 80º43'E), 1200 m a.s.l., 14–15.06.2001, A.V. Gromov; 1 ♀ (ZMUM), East-Kazakhstan Region, Urdzhar Distr., c. 4 km NE of Kyzylbulak (=Petrovskoe), canyon of Kyzylbulak River (47º03'N, 82º18'E), 1100–1150 m a.s.l., 21.06.2001, A.V. Gromov; 1 ♂, 2 ♀♀ (SMFM), same region, Urdazhar Distr., 7–8 km NE of Karatuma (=Kirovka), Tarbagatai Mt. Range, canyon of Sholakterek River, left bank (47º103'N, 82º068'E), 23.06.2001, A.V. Gromov.

COMMENTS. One our sample (3 ♂♂, 1 ♀) from Kilyazi [13] contained the males with the visibly wider ventral tibial apophysis (as seen in the lateral view; cf. Figs 8 and 9–10). No taxonomic value has been paid to this difference, for no other differences have been found in the copulatory organs both of males and of females.

DISTRIBUTION. It is a trans-Palaearctic temperate species [Marusik *et al*., 2000].

HABITAT. In the examined relic poplar stand at Kilyazi [13], the species was taken from tree leaves [present data]. In the SE part of the Caucasus Major, it was collected from the mid-mountain (*Fraxinus-Quercus-Carpinus*) forest zone [Dunin, 1989].

Philodromus fallax Sundevall, 1833

Identification: Almquist [2006: figs 398a–f]; Szita & Logunov [2008: figs 47–49, 59–60].

EARLIER RECORDS. Absheron (Gyurgyan [16]) [Guseinov, 2002]; Absheron (Ganly-Gel Lake [21], c. 40°21.46'N, 49°48.36'E; Mardakyan [18], 40°29.26'N, 50°09.06'E; Gyurgyan [16]), Shirvan Reserve [24] (c. 39°33'40"N, 49°07'45"E) and Hyrcan Reserve [26] (c. 38°38.5'N, 48°47.5'E) [see Szita & Logunov, 2008].

DISTRIBUTION. It is a trans-Palaearctic temperate species [Szita & Logunov, 2008].

HABITAT. In the semi-desert and steppe zones, this species occurs on tall grasses (*Juncus*, sciprus) along lakeshores and the coast of Caspian Sea [present data].

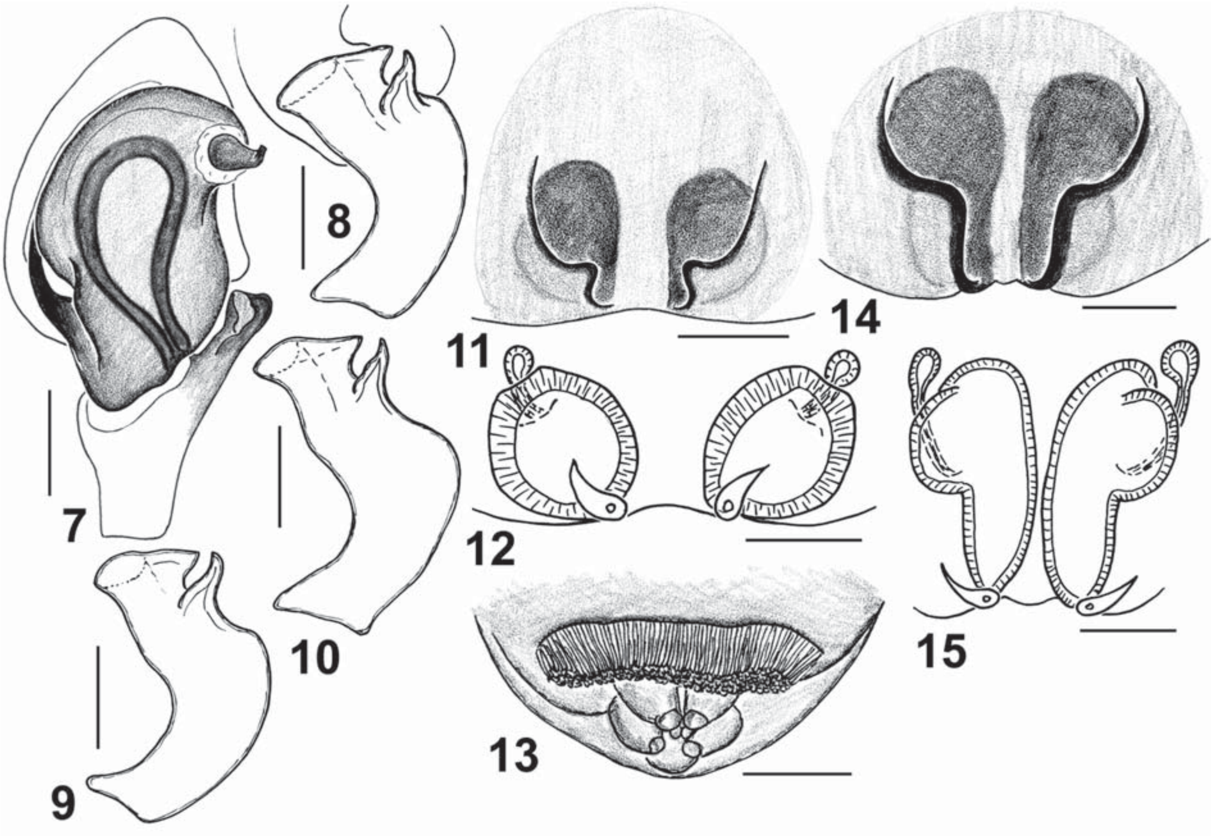
Philodromus histrio (Latreille, 1819)

Identification: Almquist [2006: figs 399a–g]; Szita & Logunov [2008: figs 4–6, 16–17].

EARLIER RECORDS. 'Lenkoran area' [Guseinov, 1999]; Aresh (=Elizavetopolsk, Bozdagh Mt. Range, c. 40°55'N, 46°41'E) and Absheron (Baku [21], c. 40°24'N, 49°52'E) [see Szita & Logunov, 2008].

DISTRIBUTION. It is a circum-Holarctic temperate species [Szita & Logunov, 2008].

HABITAT. In the semi-desert and steppe zones, this species inhabits dwarf shrubs (*Salsola*, *Artemisia*, etc.) [present data].



Figs 7–15: *Philodromus emarginatus* (7–10; 7–8 from Azerbaijan, Khyzy; 9 from Iran, Tehran; and 10 from Kazakhstan, Lepsinsk), *P. rikhteri* sp.n. (11–13; ♀ paratype) and *P. naxcivanicus* sp.n. (14–15; ♀ holotype): 7 — male palp, ventral view; 8–10 — tibial apophyses, retrolateral view; 11, 14 — epigyne, ventral view; 12, 15 — spermathecae, dorsal view; 13 — abdomen, ventral view. Scale lines: 7–12, 14–15 — 0.1 mm, 13 — 0.5 mm.

Рис. 7–15: *Philodromus emarginatus* (7–10; 7–8 из Азербайджана, Хызы; 9 из Ирана. Тегеран; и 10 из Казахстана, Лепсинск), *P. rikhteri* sp.n. (11–13; ♀ паратип) и *P. naxcivanicus* sp.n. (14–15; ♀ голотип): 7 — пальпа самца, вентрально; 8–10 — тибиальные отростки, латерально; 11, 14 — эпигина, снизу; 12, 15 — сперматека, сверху; 13 — брюшко, вентрально. Масштаб: 7–12, 14–15 — 0,1 мм; 13 — 0,5 мм.

Philodromus longipalpis Simon, 1870

Identification: Muster & Thaler [2004: figs 10, 25, 26].

MATERIAL. AZERBAIJAN: 1 ♀ (ZMUM), Absheron, Mardakyan [18] (40°29.26'N, 50°09.06'E), 9.09.2003, EH; 2 ♂♂ (ZMUM), same distr., Bina [19], (40°27'N, 50°04'E), 12.06.1999, EH; 5 ♂♂, 1 ♀ (ZMUM), Khyzy Distr., c. 12 km W of Kilyazi [13] (40º52'N, 49º12'E), 260 m a.s.l., relic poplar stand, 7.06.2003, YM & EG; 2 ♀♀ (ZMUM), Siyazan Distr., nr. Galaalty [12] (40°48'N, 49°12'E), 3.08.2000, EH.

EARLIER RECORDS. Absheron [Dunin, 1984: sub. *P. aureolus*], Muganskaya steppe [Dunin & Mamedov, 1992: sub. *P. aureolus*], 'Sheki-Zagatala area' [Dunin, 1989: sub *P. constellatus*].

DISTRIBUTION. The species displays a Mediterranean distributional pattern and has been known from Spain to Iran [Muster & Thaler, 2004]. Thus, the records from Azerbaijan lie in the north-easternmost limit of the species' distribution. This is a new record to the Azerbaijani spider fauna.

HABITAT. In the semidesert and steppe zones, the species occurs on trees in parks, gardens and wood stands [Dunin, 1984; Dunin & Mamedov, 1992; both sub *P. aureolus*; present data].

Philodromus margaritatus (Clerck 1757)

Identification: Roberts [1995: p. 175]; Almquist [2006: figs 396a–d].

MATERIAL. AZERBAIJAN: 1 ♂ (ZMUM), Zagatala Distr., Rochugel [3], 2500 m a.s.l., 22.06.2003, N.Yu. Snegovaya & H. Aliev.

COMPARATIVE MATERIAL. RUSSIA: 1 ♂ (ZMUM), Buryatia, Ivolga Distr., nr. Mostovoi, dry pine forest, 25.05.1990, S.N. Danilov.

DISTRIBUTION. It is a trans-Palaearctic temperate species [Marusik *et al*., 2000]. This is a new record to the Azerbaijani spider fauna.

HABITAT. No data from Azerbaijan.

Philodromus medius O. Pickard-Cambridge, 1872

Identification: Muster *et al*. [2007: figs 9, 23, 34, 45, 56, 67–68].

MATERIAL. AZERBAIJAN: 2 ♂♂, 1 ♀ (ZMUM), Absheron, Ganly-Gel Lake [21] (40º48.4'N, 48º36'E), 20.05–6.06.2003, YM; 1 ♂ (SMFM), same distr., Baku, Bailov Park [21] (40º21'N, 49º48'E), 6.06.2003, YM; 1 ♂ (ZMUM), same distr., Yeni-Sura-

khany [20] (40°42'N, 49°95'E), 13.06.1998, EH; 2 ♂♂, 1 ♀ (ZMUM), Gobustan, Garadagh Distr., Beyuk-Dash Mt. [23] (40º07'N, 49º23'E), 150 m a.s.l., stony semi-desert, 17–31.05.2003, EH & YM; 3 ♂♂, 1 ♀ (ZMUM), 1 ♂, 1 ♀ (PCJK), Salyan Distr., Shirvan Reserve [24] (c. 39°33'40"N, 49°07'45"E), 28–29.05.2000, EH; 2 ♂♂ (ZMUM), Khyzy Distr., c. 12 km W of Kilyazi [13] (40º52'N, 49º12'E), 260 m a.s.l., semi-desert and relic poplar stand, 7.06.2003, YM; 1 ♂ (SMFM), Naxçivan, Sharur Distr., c. 3 km E of Akhura [32] (39º34'N, 45º11'E), 1400 m a.s.l., 2.06.2003, YM; 1 ♂, 1 ♀ (ZMUM), Lerik distr., nr. Pirasora [30] (39º43.3'N, 48º22.8'E), 2000 m a.s.l., 25.05.2003, H.A. Aliev.

EARLIER RECORDS. Muganskaya steppe [Dunin & Mamedov, 1992: sub. *P. glaucinus*], 'Lenkoran area' [Guseinov, 1999: sub. *P. glaucinus*]; Naxçivan (Sharur Distr. (Akhura [32]) [Marusik *et al*., 2005: sub. *Thanatus* sp. 1].

COMPARATIVE MATERIAL. TURKEY: 1 ♀ (LMNM), Içel, c. 8.8 km N of Anamur (36º08'29"N, 32º51'53"E), hillside with scattered, mixed low scrub and herbs (*Matricaria*, clover, thistle and *Thymus* adjacent to dried-up water course), 7.05.1994, C. Felton; 1 ♀ (LMNM), Içel, Tarsus-Çamlýyayla, Kesbuku, edge on field track on herb-rich hillside, 11.06.1993, S. Judd & C. Felton.

DISTRIBUTION. To date, the species has been reported from the eastern Mediterranean, with verified records coming from the mainland of Greece, the eastern Mediterranean islands and the Near East [Muster *et al*., 2007]. Thus, our records from Azerbaijan and Turkey significantly extend the species' range eastward. This is a new record to the Azerbaijani spider fauna.

HABITAT. In the semi-desert and steppe zones, this species inhabits dwarf shrubs (*Salsola*, *Artemisia*, etc.) [present data] and the vegetation of cotton croplands [Dunin & Mamedov, 1992: sub. *P. glaucinus*].

Philodromus naxcivanicus **sp.n.**
Figs 14–15.

TYPES. Holotype ♀ (ZMUM) from AZERBAIJAN, Naxçivan, Sharur Distr., Dasharkh [31] (39º33.6'N, 45º02.5'E), 1–4.06.2003, YM.

DIAGNOSIS. This species has been provisionally placed in the *histrio* species group [*sensu* Szita & Logunov, 2008]. It is most similar to *Philodromus hierroensis* Wunderlich, 1992 from the Macaronesian islands (El Hierro) [see Wunderlich, 1992: figs 815–816] and to *P. hierosolymitanus* Levy, 1977 from Israel and SW Iran [Levy, 1977: figs 19–20; Logunov *et al*., 2007: figs 1–2], but can be distinguished from both by the S-shaped lateral guide pockets (Fig. 14; virtually straight in the related species) and the elongated, bean-shaped spermathecae (Fig. 15; round in the related species).

Yet, the new species shows some superficial similarity with *Thanatus fornicatus* Simon, 1897 [see Levy, 1977: figs 59–60], particularly in the structure of the bean-shaped spermathecae (Fig. 15), but the shape of the lateral guide pockets in both species is distinctly different, and the eye arrangement is of the *Philodromus*-type (PME closer to PLE); in *Thanatus*, eys of the posterior row are equidistant (Figs 27–30) [also see Trotta, 2005: p. 66].

DISTRIBUTION. The type locality only.

DESCRIPTION. FEMALE (the holotype). *Measurements*. Carapace 2.35 long, 2.20 wide. Ocular area: MOA-WA 0.33, MOA-WP 0.49, MOA-L 0.44. Eyes and interdistances: AME 0.10, ALE 0.12, PME 0.09, PLE 0.13, AME-AME 0.15, AME-ALE 0.09, PME-PME 0.30, PME-PLE 0.21. Abdomen 4.50 long, 3.50 wide. Chelicera length 0.84. Clypeus height 0.40. Length of leg segments: I 2.25+1.00+1.83+1.65+0.95; II 2.50+1.00+2.08+1.95+1.00; III 2.40+0.90+1.98+1.55+0.83; IV 2.63+1.00+2.13+2.05+1.00. *Leg spination* of leg I: Fm d 0-1-0, pr 0-1-1; Tb pr 1-1-1, rt 1-0-1, v 2-2-0; Mt pr 1-0-0, v 2-2-0. *Colouration*. Carapace light yellow, covered with white adpressed scales, and with two wide brown longitudinal lateral bands. Clypeus light yellow, covered with white adpressed scales and with two wide brown bands running from PLEs along the line PLE-ALE and down to the clypeal margin. Chelicerae yellow, with brown spots at their basal ends. Sternum, labium and maxillae light yellow, with brown speckles. Abdomen light yellow. Dorsum with the well-marked brown cardiac mark bordered by white stripes on each side, and with a median twisting brown band in its rear half; sides light yellow, with brown spots; vernter light yellow, with two longitudinal thin brown lines. Book-lung covers and spinnerets light yellow. All legs and palps light yellow, with brown speckles and brown rings at the distal ends of femora and at the proximal ends of tibiae and metatarsi; ventral sides of femora I brown. Epigyne and spermathecae as in Figs 14–15.

Philodromus praedatus O. Pickard-Cambridge, 1871

Identification: Segers [1990: figs 1–3, 7–8]; Kubcová [2004b: figs 1, 3]; Muster & Thaler [2004: figs 8, 15, 26].

MATERIAL. AZERBAIJAN: 1 ♀ (ZMUM), Khyzy Distr., Yarymja [15], 6.06.2000, EH.

COMMENTS. The identification of this ♀ specimen has been made on the basis of the taxonomic accounts by Segers [1990: figs 7–8] and Kubcová [2004a: figs 10c,d; 2004b: figs 1, 3]. As species of the *aureolus* group of *Philodromus* are difficult to identify after separated females, males are required to confirm this identification.

DISTRIBUTION. This species has been considered a European one, known reliably from Algeria and France to the Czech Republic [Segers, 1990; Kubcová, 2004a; Muster & Thaler, 2004]; but see Canard [2005]. The record of *P. praedatus* from the mountain Altai (South Siberia) by Marusik *et al*. [1996: p. 39] is doubtful and requires verification. Thus, if our identification is correct, the finding in Azerbaijan seems to be the easternmost record of the species. Yet, Komposch [2002] recorded *P.* cf. *praedatus* from northern Iran. Whether this record belongs to *P. praedatus* or to *P. longipalpis*, already recorded from Iran [Muster & Thaler, 2004; Ono & Martens, 2004], remains to be found out, as the latter authors did not refer to the work by Komposch [2002]. This is a new record to the Azerbaijani spider fauna.

HABITAT. A single female of the species was collected by net-sweeping of the lower tree branches in the mid-mountain forest of the Caucasus Major [present data].

Philodromus rufus Walckenaer, 1826

Identification: Segers [1989: figs 1–2, 7]; Roberts [1995: p.174]; Almquist [2006: figs 400a–d].

MATERIAL. AZERBAIJAN: 1 ♀ (ZMUM), Gabala Distr., nr. Bum [4], 6.06.2001, EH; 4 ♂♂, 3 ♀♀ (ZMUM), Lenkoran Distr., nr. Alexeevka [25] (38º41'N, 48º17'E), 26–27.04.2001, EH.

EARLIER RECORDS. 'Sheki-Zagatala area' [Dunin, 1989], 'Lenkoran area' [Guseinov, 1999], Naxçivan (Bichenek [33]) [Marusik *et al*., 2005].

COMPARATIVE MATERIAL. GREECE: 1 ♀ (LMNM), Chios, Gridia (38º12'56"N, 26º06'08"E), rocky valley off coast road above shore, 29.04.1997, C. Felton; 1 ♀ (LMNM), Chios, Kato Fano (38º12'50"N, 25º55'43"E), cave and beach, 27.04.1997, S. Judd; 1 ♀ (LMNM), Lesbos, Skala Kallonis (39º12'25"N, 26º13'13"E), oleander, 23.04.1997, S. Judd.



Figs 16–18: *Philodromus rikhteri* sp.n. (♀ paratype): 16 — abdomen, dorsal view; 17–18 — ditto, ventral view. Scale lines: 1 mm.

Рис. 16–18: *Philodromus rikhteri* sp.n. (♀ паратип): 16 — брюшко, дорзально; 17–18 — тоже, вентрально. Масштаб: 1 мм.

DISTRIBUTION. It is a circum-Holarctic temperate species [Marusik *et al*., 2000].

HABITAT. In the Hyrcan relic forests, the species was collected by net-sweeping from lower branches of trees and bushes [present data]. In the SE part of the Caucasus Major, it was collected from the submontane forest-steppes (meadows, bushes and lowland *Quercus-Alnus* forests) and low-mountain broad-leaved (*Quercus-Carpinus-Juglans*) and mid-mountain (*Fraxinus-Quercus-Carpinus*) forests [Dunin, 1989].

Philodromus xinjiangensis Tang et Song, 1987

Identification: Szita & Logunov [2008: figs 36–38, 45–46].

EARLIER RECORDS. Absheron (Ganly-Gel Lake [21], 40°21.46'N, 49°48.36'E) and Shirvan Reserve [24] (c. 39°33'40"N, 49°07'45"E) [see Szita & Logunov, 2008].

DISTRIBUTION. It is a Central Asian subboreal species, known from Azerbaijan in the west, throughout Middle Asia to NW China in the east [Szita & Logunov, 2008].

HABITAT. In the steppe of Shirvan Reserve, the species was collected from dwarf shrubs (*Salsola*, *Artemisia*, etc.) [present data].

Philodromus sp.

MATERIAL. AZERBAIJAN: 1 ♀ (ZMUM), Lenkoran Distr., nr. Apo [26] (38º38'N, 48º47'E), 28.05.2003, N.Yu. Snegovaya.

COMMENTS. This is a new species, which will be described by C. Muster (Leipzig, Germany) in the genus *Artanes*. The species is very closely related to *Philodromus poecilus* Thorell, 1872, and to date has been found from Albania and Azerbaijan (Lenkoran) only [Muster, pers. comm.].

HABITAT. No data from Azerbaijan.

Thanatus C. L. Koch, 1837

Thanatus fabricii (Audouin, 1827)

Identification: Levy [1977: figs 50–54].

MATERIAL. AZERBAIJAN: 2 ♂♂ (SMFM), Absheron, Yeni-Surakhany [20] (40°42'N, 49°95'E), 24.04.1999, EH; 2 ♂♂, 7 ♀♀ (ZMUM), same distr., Gres [17] (40°30'N, 50°11'E), 8.03.1998, EH; 2 ♂♂ (ZMUM), same distr., Baku [21] (c. 40°24'N, 49°52'E), 20.05.1997, EH; 1 ♀ (SMFM), Naxçivan, Sharur Distr., Dasharkh [31] (39º33.6'N, 45º02.5'E), 1–4.06.2003, YM.

EARLIER RECORDS. Absheron (Gres [17]) [Guseinov, 2004].

COMPARATIVE MATERIAL. ISRAEL: 1 ♂ (OUMNH, bottle 1902), 'Palestine', no date.

DISTRIBUTION. It is a rare Mediterranean species known to date from the Canary Islands in the west [Wunderlich, 1992], through Sahara and the Middle East [Levy, 1977], and to Tajikistan in the east [Lyakhov, 2000].

HABITAT. This is a psammophilous species occurring on fixed sands with sparse vegetation (with *Tamarix meyeri, Elymus giganteus, Artemisia giganthica*, etc.) along the coastline of Caspian Sea [Dunin, 1984: sub *T. pictus*; Guseinov, 2004].

Thanatus imbecillus L. Koch, 1878
Figs 19–22.

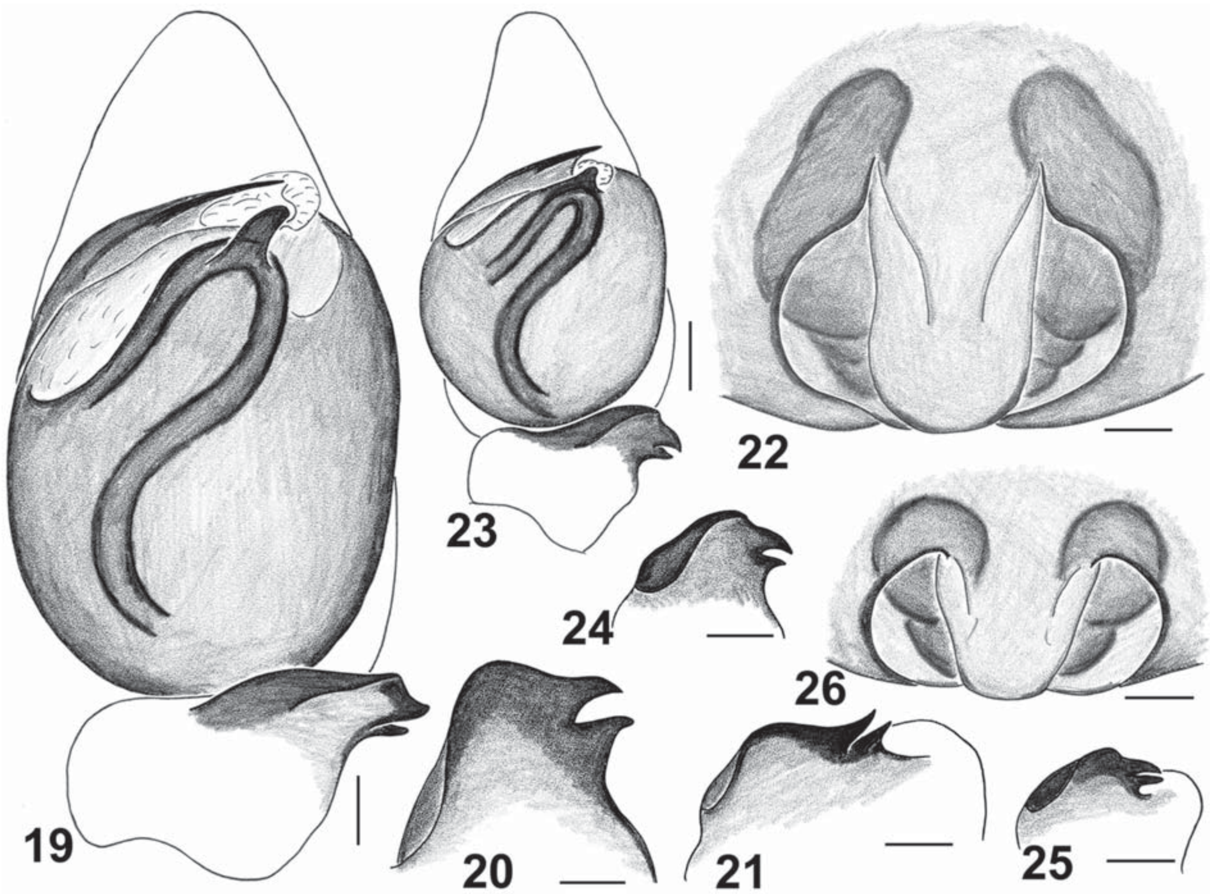
Identification: Lyakhov [2000: figs 24–27]; Kovblyuk *et al*. [2008: figs 38–42].

MATERIAL. AZERBAIJAN: 1 ♂ (ZMUM), Absheron, Baku, Bailov Park (40º21'N, 49º48'E), 17.05.1998, EH; 1 ♂ (ZMUM), same locality (40º21'N, 49º48'E), 9.05.1997, EH; 1 ♂ (ZMUM), Absheron, Kergez Mt. [22] (40°01'N, 49°38'E), 19.04.2001, EH; 2 ♂♂ (ZMUM), same distr., Yeni-Surakhany [20] (40°42'N, 49°95'E), 10.04.1994, EH; 2 ♂♂, 2 ♀♀ (SMFM) & 1 ♀ (ZMUM), Lerik Distr., Zuvand, c. 3 km E of Divagatch [29] (38º41.5'N, 48º23'E), 1400 m a.s.l., meadow with stones along river, 26.05.2003, YM & EG; 1 ♀ (ZMUM), same locality, 26.05.2003, EH; 1 ♂ (ZMUM), same distr., nr. Pirasora [30] (39º43.3'N, 48º22.8'E), 2000 m a.s.l., 25.05.2003, EH; 8 ♂♂, 3 ♀♀ (ZMUM), Gobustan, Garadagh Distr. [23] (40º07'N, 49º23'E), 150 m a.s.l., stony semi-desert, 17–31.05.2003, YM; 1 ♂, 1 ♀ (ZMUM), same region and distr., Beyuk-Dash Mt. [23] (40º07'N, 49º23'E), 18.04.2001, EH; 1 ♀ (ZMUM), Ismailly Distr., Ismailly Reserve [9] (40º93'N, 48º01'E), 1500 m a.s.l., 13.07.2001, EH; 3 ♀♀ (ZMUM), Naxçivan, Shakhbuz Distr., nr. Bichenek [33] (39º31.7'N, 45º46.6'E), 3.06.2003, EH; 2 ♂♂, 1 ♀ (ZMUM), same region and district, nr. Bichenek, Bichenek River [34] (39º29.4'N, 45º45'E), 1600 m a.s.l., gravely riverbank, 3.06.2003, YM; 1 ♂, 1 ♀ (NHMB) & 1 ♀ (ZMUM), Naxçivan, Sharur Distr., c. 3 km E of Akhura [32] (39º34'N, 45º11'E), 2.06.2003, YM & EG; 1 ♀ (ZMUM), same region and district, nr. Dasharkh [31] (39º33.6'N, 45º03'E), 1–4.06.2003, YM.

EARLIER RECORDS. Absheron [Dunin, 1984: sub. *T. meronensis*; Guseinov, 2004], Muganskaya steppe [Dunin & Mamedov, 1992: sub. *T. meronensis*], 'Lenkoran area' [Guseinov, 1999: sub. *T. meronensis*], Naxçivan (Dasharkh [31], Akhura [32]), Shakhbuz Distr. (Batabat, Bichenek [33]) [Marusik *et al*., 2005].

COMPARATIVE MATERIAL. GREECE: 9 ♂♂ (LMNM), Chios, Kipouries (38º29.70'N, 25º59.44'E), pitfall traps, 9–24.05.1999, M.J. Taylor. TURKEY: 5 ♀♀ (OUMNH; earlier det. as *T. meronensis*), Trabzon, Zigana, 2200 m a.s.l., under rocks, 24.08.1958, G. Lampel; 1 ♀ (LMNM), Içel, Silifke Sand Dunes (36º17'05"N, 33º56'08"E), inner dunes with damp, *Salicornia* dominated, halophytic vegetation and red bed, 6.05.1994, S. Judd & C. Felton; 1 ♂ (LMNM), Yozgat (40º01'43"N, 34º37'21"E), Bogazkale, Bashkent Motel, grassy hillside, *Populus* copse with *Ranunculus* dominant, 14.05.1994, S. Judd & C. Felton. TURKMENISTAN: 6 ♂♂ (ZMUM), nr. Firyuza, Dushak Mt., 17.04.1988, A.V. Barkalov.

COMPARATIVE MATERIAL on *T. meronensis* Levy, 1977 (Figs 23–26): ISRAEL: 1 ♂, 1 ♀ (HUJI, 15546; ♂ holotype and ♀ paratype), Mt. Meron, 1100 m a.s.l., 9.04.1968, G. Levy.



Figs 19–26: *Thanatus imbecillus* (19–22; from Azerbaijan, Zuvand) and *T. meronensis* (23–26; ♂ and ♀ paratypes): 19, 23 — male palp, ventral view; 20, 24 — tibial apophyses, venro-lateral view; 21, 25 — ditto, retrolateral view; 22, 26 — epigyne, ventral view. Scale lines: 0.1 mm.

Рис. 19—26: *Thanatus imbecillus* (19–22; из Азербайджана, Зуванд) и *T. meronensis* (23–26; ♂ и ♀ паратипы): 19, 23 — пальпа самца, вентрально; 20, 24 — тибиальные отростки, вентро-латерально; 21, 25 — тоже, латерально; 22, 26 — эпигина, снизу. Масштаб: 0,1 мм.

COMMENTS. It has once been suggested [Kovblyuk *et al*., 2008: p. 26] that the records of *T. meronensis* from Israel could belong to *T. imbecillus*. A direct comparison of the abundant material of *T. imbecillus* examined by us with the types of *T. meronensis* has revealed that it is not the case. Both species are close but distinct: viz., the male palp of *T. imbecillus* is twice as large as that of *T. meronensis* (Figs 19, 23), its tegular apophysis is longer and the tibial apophysis is stronger and of a different shape (Figs 20, 24). The female of *T. imbecillus* has the longer median plate and the different shape of the lateral guide pockets (S-shaped *vs*. C-shaped; Figs 22, 26).

It is worth mentioning that the ♀ paratype re-examined by us (Fig. 26) displays a different structure of its epigyne compared to the original illustration by Levy [1977: fig. 57]. The latter is virtually identical to that of *T. imbecillus* (Fig. 22). Whether this fact reflects the differences in drawing techniques or the occurrence of *T. imbecillus* in Israel (and hence specimens of it within the type series of *T. meronensis*), we do not know. Anyway, the ♂ holotype of *T. meronensis* is clearly distinct from the males of true *T. imbecillus*, suggesting a separated taxonomic status of the two species.

DISTRIBUTION. This is a poorly known but relatively widespread species occurring from the Greek islands [present data], eastward throughout the Crimea, Rostov Region [Kovblyuk *et al*., 2008] and Asia Minor [present data] to the Caucasus [Dunin, 1984; Mkheidze, 1997; Marusik *et al*., 2005; and the works cited therein; present data] and then to Central Asia as far as Tajikistan [Lyakhov, 2000; and the works cited therein]. Canard [2005] mentioned the occurrence of *T. imbecillus* in central Europe, whereas other authors [Lyakhov, 2000; Marusik *et al*., 2005; Kovblyuk *et al*., 2008] mentioned it for the Balkans; yet, we don't know the original source(s) for these records.

HABITAT. In the semi-desert and steppe zones, this species is found at ground level in dense grassy vegetation in cotton croplands, tree plantations and various kinds of natural ecosystems [Dunin, 1984; Dunin & Mamedov, 1992: both sub *T. meronensis*; Guseinov, 2004].

Thanatus kitabensis Charitonov, 1946

Identification: Lyakhov [2000: figs 33–36].

MATERIAL. AZERBAIJAN: 2 ♂♂ (ZMUM), Absheron, Baku, Bailov Park [21] (40º21'N, 49º48'E), 17.05.1998, EH; 1 ♂,

1 ♀ (ZMUM), same locality [21] (40º21'N, 49º48'E), 9–20.05.1997, EH; 3 ♀♀ (ZMUM), Gobustan, Garadagh Distr., Beyuk-Dash Mt. [23] (40º07'N, 49º23'E), 15–18.04.2001, EH.

COMPARATIVE MATERIAL. KAZAKHSTAN: 1 ♂ (ZMUM), West-Kazakhstan Region, nr. Dzhanybek (c. 49º23'N, 46º47'E), pitfall traps, 21–25.04.2004, T.V. Piterkina; 1 ♀ (ZMUM), same locality, 5–8.06.1984, K.G. Mikhailov; 1 ♀ (ZMUM), Almaty Region, Ili Distr., Kurtinskoe reservoir (east shore), 4.05.1988, C.K. Tarabaev & M. Zarko; 1 ♂ (ZMUM), Zhambyl Region, Suzak Distr., Karatau Mt. Range, the upper reaches of Karabulak river, 22.04.1988, C.K. Tarabaev. KYRGHYZSTAN: 1 ♂, 1 ♀ (ZMUM), Dzhetymbel Mts, nr. Snak Pass, c. 3800 m a.s.l., 10–13.06.1997, D. Obydov. TURKMENISTAN: 2 ♂♂ (ZMUM), Geok-Tepe Distr., Central Kopetdag Range, Dushak Mt., nr. Firyuza, 17.04–21.05.1988, A.V. Barkalov; 1 ♂ (ZMUM), Central Kopet-dagh Mts, 50 km WNW from the Firyuza, Mirzadagh Range (S slope), opposite to the Mergenulya stand, upper part of the Manezh-naya gorge, 1–4.04.1987, V.V. Dubatolov; 2 ♂♂ (ZMUM), Kopet-dagh Reserve, Kalininski Zakaznik, 18.05.1987, V.V. Dubatolov.

EARLIER RECORDS. Absheron (Baku [21]) [Dunin, 1984: sub *T. arenarius*; Guseinov, 2002], Gobustan (Beyuk-Dash Mt. [23]) [Guseinov, 2002], 'Sheki-Zagatala area' [Dunin, 1989: sub *T. arenarius*].

COMMENTS. The species has been identified on the basis of the work by Lyakhov [2000]; yet the latter author did not re-examine the type series of *T. kitabensis*. This species seems to be closest to *T. ubsunurensis* Logunov, 1996 from Tuva (South Siberia). The males of *T. kitabensis* from Azerbaijan display a slightly different shape of the tibial apophysis, which is less bent as compared to that of most males from Central Asia illustrated by Lyakhov [2000: figs 33, 34]. The matter requires a further attention in the future.

DISTRIBUTION. This is a common Turanian species, occurring from Azerbaijan [present data] and Kalmykia [Minoranskii & Ponomarev, 1984] in the west, throughout Middle Asia to SE Kazakhstan and Tajikistan in the east [Lyakhov, 2000; and the works cited therein].

HABITAT. In the semidesert zone, this species occurs on hill slopes with sparse vegetation [present data] and it has also been recorded from the fixed sands along the coastline of the Caspian Sea (with *Tamarix meyeri, Elymus giganteus, Artemisia giganthica* etc.) [Dunin, 1984: sub. *T. arenarius*]. In the SE part of the Caucasus Major, it was collected from the submontane forest-steppes (meadows, bushes and lowland *Quercus-Alnus* forests) and low-mountain broad-leaved (*Quercus-Carpinus-Juglans*) forests [Dunin 1989: sub *T. arenarius*].

Thanatus oblongiusculus (Lucas, 1846)
Fig. 27.

Philodromus oblongiusculus Lucas, 1846: 200, pl. 11, fig. 8 (D♀; the type in not examined).

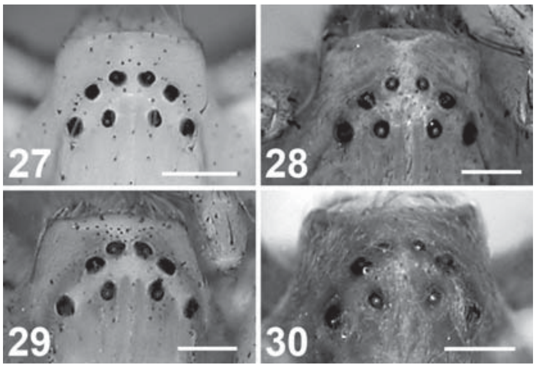
Paratibellus oblongiusculus: Simon, 1932: 864, 887, figs 1325–1326 (♂♀).

Thanatus constellatus Charitonov, 1946: 28, figs 50–51 (D♂♀; the syntypes from the Perm State University, examined). **Syn.n.**

For a complete set of references both under *Paratibellus oblongiusculsus* and under *T. constellatus*, see Platnick [2008].

Identification: Maurer & Walter [1984: figs 1a,c, sub *Paratibellus o.*]; Logunov [1996: figs 118–124, sub. *T. constellatus*].

MATERIAL. AZERBAIJAN: 1 ♂ (ZMUM), Gobustan, Garadagh Distr. (40º07'N, 49º23'E), 150 m a.s.l., stony semi-desert [23], 17–31.05.2003, YM; 1 ♂ (ZMUM), Ismailly Distr., Khamash [8], 25.06.2003, N.Yu. Snegovaya & H. Aliev; 1 ♂, 1 ♀ (ZMUM), Khyzy Distr., c. 12 km W of Kilyazi [13] (40º51.5'N, 49º11'E), 7.06.2003, EH; 1 ♂, 1 ♀ (ZMUM), same distr., nr. Dizyavar [14], 4.06.2000, EH; 2 ♂♂, 2 ♀♀ (PCJK), Naxçivan, Sharur Distr., Akhura [32] (39º34'N, 45º11'E), 2.06.2003, EH; 1 ♀ (ZMUM), Naxçivan, same distr., Dasharkh [31] (39º33.7'N, 45º02.5'E), 1–4.06.2003, YM.



Figs 27–30: Eye fields of the females of *Thanatus oblongiusculus* (27; from Azerbaijan, Dizyavar), *T. bungei* (Kulczyński, 1908) (28; from Russia, Transbaikalia, Sokhondo reserve), *T. vulgaris* (29; from Tajikistan, Varzob) and *T. formicinus* (Clerck, 1757) (30; from USA, Alaska, Fairbanks). Scale lines: 0.5 mm.

Рис. 27–30: Глазное поле самок *Thanatus oblongiusculus* (27; из Азербайджана, Дизявар), *T. bungei* (Kulczyński, 1908) (28; из Росси, Забайкалье, Сохондинский запов.), *T. vulgaris* (29; из Таджикистана, Варзоб) и *T. formicinus* (Clerck, 1757) (30; из США, Аляска, Файрнбанкс). Масштаб: 0,5 мм.

EARLIER RECORDS. Zagatala Distr. (Uzuntala [1]) [Kulczyñski, 1895; sub. *Tibellus o.*], Kanlar Distr. (Gyandja [7]) [Charitonov, 1936; sub *Paratibellus o. atomarius*], Naxçivan (Akhura [32]) [Marusik *et al*., 2005; sub *Paratibellus o.*].

COMPARATIVE MATERIAL. SPAIN: 1 ♂ (PCRB), Almeria, road Alcolea-Cherin, stones in olive orchard, 9.04.1998, R. Bosmans. ITALY: 1 ♂ (PCJK), Sardinia, Cagliari Distr., nr. Villacidro Vil., Monte Mannu Hills, sweeping over grassland, 20.05.1997, J. van Keer. SWITZERLAND: 1 ♂, 2 ♀♀, plus a separate ♂ palp (NHMB, 1298), no exact locality, but this sample was earlier examined by Maurer & Walter [1984]. TURKEY: 1 ♀ (LMNM), Nevsehir, c. 5 km E of Urgup, 12.07.1992, C. Felton. KAZAKHSTAN: 2 ♂♂, 1 ♀ (ZMUM), West-Kazakhstan Region, nr. Dzhanybek (c. 49º23'N, 46º47'E), wormwood steppe, 9–10.06.1982, K. G. Mikhailov; 1 ♀ (ZMUM), same locality, 23.06.2004, T.V. Piterkina; 1 ♂ (SMFM), Almaty Region, Uigur Distr., Ketmen' Mt. Range, c. 4 km SE of Kyrgyzsai (=Podgornoe), canyon of M. Kyrgyzsai river (43º18'N, 79º31'E), 1750 m a.s.l., 1–3.06.2001, A. V. Gromov; 2 ♀♀ (SMFM), East-Kazakhstan Region, Urdzhar Distr., c. 4 km NE of Kyzylbulak (=Petrovskoe), canyon of Kyzylbulak River (47º03'N, 82º18'E), 1100–1150 m a.s.l., 21.06.2001, A.V. Gromov.

COMMENTS. As was earlier noticed by Marusik *et al*. [2005: p. 142], this species poses two taxonomic problems: viz., its taxonomic relation with *T. constellatus* and its proper generic assignment. First, although we have been unable to re-examine the type series of *Philodromus oblogiusculus*, we have (re)examined extensive material labelled both as *Paratibellus oblongiusculus* and as *T. constellatus*, including the type series of the latter species, from many geographic localities from Spain to East-Kazakhstan Region in Central Asia (see above under 'Material' and 'Comparative material', and also in Logunov [1996: p. 167–168; sub *T. constellatus*]). All the (re)examined specimens have shown no morphological differences and do belong to the same species. Thus, reasoning from the results of our study and from the published taxonomic illustrations of European specimens by Maurer & Walter [1984: figs 1a,c], Noflatscher [1993: fig. 13] and Trotta [2005: figs 376–377], it is safe to conclude that the name *T. constellatus* should be synonymized with *P. oblongiusculus*.

The second problem is related to the generic assignment of this species, which since the famous work by Simon

[1932] has been considered by most authors in a monotypic genus *Paratibellus*. On the one hand, the main/only difference of *Paratibellus* from *Thanatus* seems to be the elongated abdomen [see Trotta, 2005: p. 66], which is by no means unique and can be found in a number of *Thanatus* species, especially in males (e.g., *T. vulgaris* Simon, 1870, *T. pictus* L. Koch, 1881, etc.). The second difference mentioned by Trotta [2005: p. 66] is the strongly recurved posterior row of eyes, which is actually not the case of *T. oblongiusculus* (Fig. 27), as it actually has got the slightly procurved row of aequidistant posterior eyes as in all other *Thanatus* species (cf. Figs 28–30). Yet, the strongly recurved row of posterior eyes separates the genus *Tibellus* from the rest of European philodromids [see also Efimik, 1999: p. 104]. On the other hand, the copulatory organs of *T. oblongiusculus*, particularly the shape of the secondary tibial apophysis and the bulge-shaped tegular apophysis [see Logunov, 1996: p. 164], are the only differences separating this species and *T. bungei* (Kulczyński, 1908) from the rest of *Thanatus* species known to us. Both were placed in the *bungei* group, one of the at least four well-diagnosed species groups of *Thanatus* [see Logunov, 1996]. Our colleague, C. Muster (Leipzig, Germany) [pers. comm.] kindly called out attention to the characters of leg spination distinguishing *T. oblongiusculus* from the *Thanatus* species known to him: viz., metatarsi with 3 pairs of ventral spines (2 in *Thanatus*), metatarsi with 2 pro- and retrolateral spines (0–1 in *Thanatus*), and metatarsi and tarsi with no dense pilosity (found in all *Thanatus* species known to me). Yet, the somatic morphology, particaurly the arrangement of the aequidistant posterior eyes, and the structure of the copuatory organs in both sexes are, to our opinion, far stronger evidences that *T. oblongiusculus* is a member of *Thanatus*.

Besides, the main taxonomic problem here, as we see it, is not whether *T. oblongiusculus* belongs to a separate genus *Paratibellus*, but, if it is so, whether all the well-defined species groups of *Thanatus* are to be considered separate genera as well. This larger problem is outside the scope of the present work, and currently it is safer just to consider *Paratibellus* as a species group of *Thanatus*; viz., the *bungei* group *sensu* Logunov [1996]. Therefore *T. oblongiusculus* is treated here as a member of *Thanatus*, following some earlier authors [e.g., Simon, 1874; Kulczyński, 1899; Nosek, 1905; Urones, 1986], whereas the genus *Paratibellus* is considered a junior synonym of *Thanatus*.

DISTRIBUTION. This is a European-Central Asian subboreal species, occurring from Spain [Urones, 1995: sub. *Paratibellus o.*] and France [Simon, 1932: sub. *Paratibellus o.*], throughout Europe [Canard, 2005: sub. *Paratibellus o.*], eastward to Central Asia and NW China (Xinjiang) [Logunov, 1996: sub. *T. constellatus*] and southward to Tajikistan [Lyakhov, 2000: sub. *T. constellatus*].

HABITAT. In Naxçivan, this species was collected from the ground surface in cereal fields [present data].

Thanatus pictus L. Koch, 1881

Identification: Logunov [1996: figs 10–14, sub *Apollophanes babaly*]; Szita & Samu [2000: figs 28–30, 35–36].

MATERIAL. AZERBAIJAN: 1 ♀ (ZMUM), Lerik Distr., Divagatch [29] (38º41.5'N, 48º23'E), 25.05.2003, N.Yu. Snegovaya.

EARLIER RECORDS. Absheron [Dunin, 1984]. According to our data, *T. pictus* does not occur in Absheron. One of us (EH) has collected or observed thousands of *Thanatus* specimens from Absheron, and all of them belonged to *T. fabricii*, *T. imbecillus*, *T. kitabensis*, or *T. vulgaris*. Therefore, we are of the opinion that the record by Dunin [1984] is based on a misidentification and it is disregarded here. Most probably, the latter author dealt with *T. fabricii*, as this species has got the tibial apophysis superficially similar to that of *T. pictus*.

COMPARATIVE MATERIAL. AUSTRIA: 2 ♂♂ (OUMNH), 'Steinfield near Wiener Neustadt', no date. TURKEY: 1 ♂ (OUMNH), Urfa, under stones, 12.09.1956, G. Lampel; 1 ♀ (LMNM), Kayseri, c. 31 km SE of Develi (38º15'02"N, 35º45'27"E), 12.05.1994, S. Judd & C. Felton.

COMMENTS. Our female from Divagatch has a slightly larger epigyne compared to the Turkish female (yet of the identical conformation), and therefore might belong to a separate, closely related species. Males are required to clarify and confirm the present record.

DISTRIBUTION. It is a Euro-Siberian steppe species, known from central Europe [Szita & Samu, 2000; Canard, 2005] to the Altai in east [Logunov, 1996: sub *Apollophanes babaly*]. Thus, the records from Azerbaijan and Turkey represent the southernmost limits of the species' distribution.

HABITAT. No data from Azerbaijan.

Thanatus sabulosus (Menge, 1875)

Identification: Logunov [1996: figs 143–145, 153–157]; Szita & Samu [2000: figs 10–12, 18–19].

MATERIAL. AZERBAIJAN: 1 ♂, 1 ♀ (SMFM) & 1 ♂ (ZMUM), Lenkoran Distr., 25th km of Lenkoran-Lerik Rd. [28] (38º44.4'N, 48º37'E), 254 m a.s.l., tea plantation, 26.05.2003, YM & EG; 2 ♂♂, 3 ♀♀ (ZMUM), Lenkoran Distr., Hyrkan Reserve, nr. Apo [26] (38º38'N, 48º47'E), 28.05.2003, YM & H. Aliev.

EARLIER RECORDS. 'Lenkoran area' [Guseinov, 1999: sub *T. formicinus*].

COMPARATIVE MATERIAL. RUSSIA: 2 ♂♂, 1 ♀ (ZMUM), Belgorod Region, nr. Borisovka, glade of oak forest, 22.06.2002, N.Yu. Polchaninova.

DISTRIBUTION. It is a Euro-Siberian subboreal species, known from Spain [Urones, 1995] to Transbaikalia [Logunov, 1996]. This is a new record to the Azerbaijani spider fauna.

HABITAT. This species inhabits the leaf litter of the Hyrcan relic forests [present data].

Thanatus vulgaris Simon, 1870

Identification: Logunov [1996: figs 194–197, 204–206]; Szita & Samu [2000: figs 40–42, 45–46].

MATERIAL. AZERBAIJAN: 1 ♂, 9 ♀♀ (SMFM), Absheron, Ganly-Gel Lake [21] (40º48.4'N, 48º36'E), 20.05–6.06.2003, YM; 2 ♂♂, 5 ♀♀ (ZMUM), same distr., Yeni-Surakhany [20] (40°42'N, 49°95'E), 16.05.1997, EH; 2 ♂♂, 1 ♀ (ZMUM), Gobustan, Garadagh Distr. (40º07'N, 49º23'E), 150 m a.s.l., stony semi-desert [23], 17–31.05.2003, YM; 1 ♀ (ZMUM), Gabala Distr., Laza [5], 12.08.2001, EH; 3 ♂♂ (NHMB), Lenkoran Distr., Hyrkan Reserve [26] (38º38.5'N, 48º47.5'E), 23.05.2003, EH; 3 ♂♂ (ZMUM), Salyan Distr., Shirvan Reserve [24] (c. 39°33'40"N, 49°07'45"E), 28–29.05.2000, EH; 3 ♂♂, 1 ♀ (ZMUM), Naxçivan, Sharur Distr., nr. Dasharkh [31] (39º33.6'N, 45º03'E), 870 m a.s.l., 1–6.06.2003, YM & EG.

EARLIER RECORDS. Absheron [Dunin, 1984; Guseinov, 2004], Muganskaya steppe [Dunin & Mamedov, 1992], 'Lenkoran area' [Guseinov, 1999], Naxçivan (Sharur Distr.: Dasharkh [31]; Shakhbuz Distr.: Bichenek [33]) [Marusik *et al.*, 2005]; Pirkuli Reserve [11] [Huseynov & Alieva, in press].

COMPARATIVE MATERIAL. RUSSIA: 1 ♂, 2 ♀♀ (ZMUM), Stavropol Territory, Manych Lake, saline semi-desert, T. Khanov. – IRAN: 1 ♀ (OUMNH), Khuzistan, Shush/Susa, beaten bush, 17.09.1958, G. Lampel. TURKEY: 1 ♀ (OUMNH), Van, 24k Tatvan Van, under rocks, 22.08.1956, G. Lampel; 2 ♂♂, 1 ♀ (LMNM), Konya, Tuz Gölü, Yavşan Tuslası (38º45'43"N, 33º09'31"E), stony railway embankment with sparse halophytic vegetation adjacent to

evaporating lagoon, 18.06.1993, C. Felton; 1 ♀ (LMNM), Konya, Sakyatan, 10.07.1992, C. Felton; 1 ♂, 2 ♀♀ (LMNM), Konya, nr. Akşehir, mixed scrub, herbs and grasses on north-facing limestone slope above Dağ Otel, 19.09.1993, S. Judd & C. Felton; 2 ♂♂ (LMNM), Kayseri, Sultansazligi, degraded edge of marsh with *Atriplex*, *Suaeda*, *Scirpus*, *Carex* and various grasses, 14.06.1993, S. Judd & C. Felton; 2 ♀♀ (LMNM), Isparta, c. 4 km E of Ëgridir, 8.07.1992, S. Judd; 1 ♀ (LMNM), same locality, 20.06.1993, C. Felton; 1 ♀ (LMNM), Antalya, c. 25 km W of Anamur, Alı Deniz, sparsely vegetated stony ground above beach, 8.06.1993, C. Felton. EGYPT: 6 ♂♂, 6 ♀♀ (OUMNH, bottle 1308, tubes 12–13; earlier det. as *T. albini*), 'Egypt (Gen)', no date.

DISTRIBUTION. The species displays a Holarctic polyzonal range [Logunov, 1996; Lyakhov, 2000], but its occurrence in North America is known to be due to human introduction [Dondale & Redner, 1978].

HABITAT. In the semi-desert and steppe zones, this species is found at ground level in dense grassy vegetation in cotton croplands, tree plantations and various kinds of natural ecosystems [Dunin, 1984; Dunin & Mamedov, 1992; Guseinov, 2004].

Tibellus Simon, 1875

Tibellus macellus Simon, 1875

Identification: Efimik [1999: figs 8, 15–16, 25, 33, 41, 49, 66–70].

MATERIAL. AZERBAIJAN: 1 ♂ (SMFM), Lenkoran Distr., Hyrkan Reserve, Khanbulan [27] (38º43.8'N, 48º25.75'E), 28.05.1995, EH; 1 ♀ (ZMUM), same distr., nr. Avrora [25] (38º41'N, 48º17'E), 24.05.2003, EH.

EARLIER RECORDS. 'Lenkoran area' [Guseinov, 1999], Lenkoran Distr. (Avrora [25]) [Huseynov, 2008].

COMPARATIVE MATERIAL. KAZAKHSTAN: 1 ♂ (ZMUM), West-Kazakhstan Region, nr. Dzhanybek (c. 49º23'N, 46º47'E), pitfall traps, 2–7.07.2004, T.V. Piterkina; 1 ♀ (ZMUM), same locality, 1.07.1984, K.G. Mikhailov.

DISTRIBUTION. It is a Palaearctic subboreal species [Efimik, 1999].

HABITAT. In the humid subtropical zone of the southwest part of Azerbaijan, this species occurs on tall grassy vegetation in wet meadows [Huseynov, 2008].

Tibellus oblongus (Walckenaer, 1802)

Identification: Efimik [1999: figs 18, 26, 38, 42, 50, 77–83]; Almquist [2006: figs 407a–g].

MATERIAL. AZERBAIJAN: 1 ♀ (ZMUM), Absheron, Gyurgyan [16] (40°24'N, 50°16'E), 01.05.2001, EH; 1 ♀ (SMFM), Gusar Distr., nr. Laza [6], 1800 m a.s.l., 6.08.2001, EH.

EARLIER RECORDS. Kanlar Distr. (Gyandja [7]) [Charitonov, 1936], 'Sheki-Zagatala area' [Atakishiev, 1969; Dunin, 1989], Absheron [Dunin, 1984], Muganskaya steppe [Dunin & Mamedov, 1992], 'Lenkoran area' [Guseinov, 1999].

COMPARATIVE MATERIAL. GREECE: 1 ♀ (LMNM), Lesbos, Salt Pans, Skala Polichntou (39º07'16"N, 26º11'08"E), 20.04.1997, S. Judd; 2 ♀♀ (LMNM), Lesbos, Vatera (39º01'13"N, 26º10'53"E), 19.04.1997, S. Judd. TURKEY: 1 ♀ (LMNM), Konya, Sakyatan, 10.07.1992, C. Felton; 1 ♀ (LMNM), Askary, nr. Sultanhani, Esmekaya, 11.07.1992, S. Judd & C. Felton; 1 ♀ (LMNM), Kayseri, c. 1 km E of Dörtyal, Çol Gölü (38º27'40"N, 35º10'05"E), 11.05.1994, S. Judd & C. Felton; 1 ♀ (LMNM), Kayseri, Sultansazligi, degraded edge of marsh with *Atriplex*, *Suaeda*, *Scirpus*, *Carex* and various grasses, 14.06.1993, S. Judd & C. Felton.

COMMENTS. See Efimik [1999].

DISTRIBUTION. It is a common, Holarctic polyzonal species [Efimik, 1999].

HABITAT. In the semi-desert zone, this species occurs on tall grasses (*Juncus*, scirpus) along lakeshores and the coast of Caspian Sea [present data]. In the steppe zone, it was collected from the vegetation of cotton croplands and from tree plantations [Dunin & Mamedov, 1992]. In the SE part of the Caucasus Major, it was collected from lowland meadow-forest zone (meadows, bushes and willow-poplar *Tamarix* stands), the submontane forest-steppes (meadows, bushes and lowland *Quercus-Alnus* forests), low-mountain broad-leaved (*Quercus-Carpinus-Juglans*) and mid-mountain (*Fraxinus-Quercus-Carpinus*) forests [Dunin, 1989].

Species excluded from the list

The eight (sub)species of Philodromidae recorded earlier from Azerbaijan by various authors are excluded from the current list because of the following reasons.

Paratibellus oblongiusculus atomarius Simon, 1932. This subspecies has once been reported from Gyandja [7] (Kanlar Distr.) by Charitonov [1936]. The same author also reported on *P. oblongiusculus* from exactly the same locality. The subspecies *P. o. atomarius* remains known only after the original description [Simon, 1932] and its taxonomic validity is rather obscure. For instance, its only differences from the nominative species seem to be the better marked body and leg black spotting and the darker body stripes [see Simon, 1932: p. 865], which are hardly enough to diagnose this taxon. Therefore, we have excluded *P. o. atomarius* from the current list of Azerbaijani Philodromidae.

Philodromus aureolus (Clerck, 1757) and *P. cespitum* (Walckenaer, 1802). The former species has been reported repeatedly from various regions of Azerbaijan [Charitonov, 1936; Dunin, 1984, 1989; Dunin & Mamedov, 1992; Guseinov *et al*., 2003]; the latter has been reported once [Dunin, 1989]. However, our own collections taken from the same regions have revealed neither of these species, but instead two other representatives of *aureolus* group: *P. azcursor* sp.n. and *P. longipalpis* (see above). *P. azcursor* has only been collected from the Caucasus Major, whereas *P. longipalpis* from Absheron Peninsula and adjacent steppe regions. Thus, we have tentatively treated Dunin's [1989] record of *P. aureolus* from 'Sheki-Zagatala' area as those of the former species, whereas his records of *P. aureolus* from Absheron and the Muganskaya steppe [Dunin, 1984; Dunin & Mamedov, 1992] as those of the latter one. It is likely that both *P. aureolus* and *P. cespitum* occur in Azerbaijan, but their occurrence is to be confirmed by (re)examination of the pertinent material.

Philodromus fuscolimbatus Lucas, 1846. The record of this species from 'Sheki-Zagatala area' by Dunin [1989: sub *P. constellatus* Simon, 1875; = *P. fuscolimbatus*, see Platnick, 2008] is likely to belong to *P. longipalpis*. The taxonomic status and validity of *P. fuscolimbatus* were confirmed relatively recently, when Segers [1992] designated its neotype and pointed out to its reliable diagnostic characters. This happened after Dunin had made his identification. *P. fuscolimbatus* is known from Algeria and Spain in the west to Turkey in the east [Urones, 1995; Muster & Thaler, 2004]. Its range more or less coincides with that of *P. longipalpis*, known from Spain to Iran. Both species are rather similar, but *P. fuscolimbatus* can be separated from *P. longipalpis* by the smaller epigyne and the overall darker colouration of its females [cf. Figs 18 and 24 in Muster &

Thaler, 2004] and by the retrolateral tibial apophysis in males, which is visibly bent on its dorsal side in *P. longipalpis* [cf. Figs 10 and 13 in Muster & Thaler, 2004]. Thus, we suspect that Dunin [1989] just misidentified *P. longipalpis*, a common species in our collection, and reported it under the name of *P. constellatus*.

Philodromus glaucinus Simon, 1870. The earlier records of this species from the Muganskaya steppe [Dunin & Mamedov, 1992] and 'Lenkoran area' [Guseinov, 1999] are to be assigned to *Philodromus medius*, the only species of the *pulchellus* species group reliably found in Azerbaijan (see above). A separation of species of this group has been virtually impossible until the recent taxonomic revision by Muster *et al*. [2007].

Thanatus arenarius L. Koch, 1872. The earlier records of this species from Absheron [Dunin, 1984] and 'Sheki-Zagatala area' [Dunin, 1989] are to be assigned to *T. kitabensis*. We have collected numerous materials of *Thanatus* from Absheron belonging to four species (*T. fabricii*, *T. imbecillus*, *T. kitabensis* and *T. vulgaris*), but no specimen of *T. arenarius* has been found there. As the latter species is relatively similar to *T. kitabensis*, for instance in having the bent tibial apophysis of males [see Lyakhov, 2000: figs 1–2 and 33–34], it therefore might have been mixed up with *T. arenarius* by Dunin [1984, 1989]. To date, we have had no opportunity to re-examine the pertinent material by Dunin.

Thanatus formicinus (Clerck, 1757). The earlier record of this species from 'Lenkoran area' by Guseinov [1999] has been proven to be a misidentification and to actually belong to *T. sabulosus* (the pertinent material has been re-examined). Yet, the species has been recorded from cotton fields of the neighbouring Caspian costal territories of Iran [e.g., Ghavami, 2006, 2007], but these records are to be verified by re-examination of the pertinent material.

Tibellus maritimus (Menge, 1875). The species was first recorded by Atakishiev [1969] from 'Sheki-Zagatala area', then this record was repeated by Dunin [1989]. One of us (EH) has observed and/or collected numerous material of *Tibellus* from Azerbaijan, but has never found this species. According to Efimik [1999], *T. maritimus* is a Holarctic polyzonal species, but it seems that it does not go as far south as the Caucasus and Middle Asia, where *T. macellus* is quite common. Both species can easily be confused, and we suspect that this is what might have happened when Atakishiev [1969] first reported on *T. maritimus* from Azerbaijan. The occurrence of the latter species in Azerbaijan is possible, but it requires confirmation upon the pertinent material.

A new species from Armenia

Philodromus rikhteri **sp.n.**
Figs 11–13, 16–18

TYPES. Holotype ♀ (ZISP, N210–1936) from ARMENIA, 'Erivan' [=Yerevan], 2.04.1936, A.A. Rikhter. Paratype: 1 ♀ (ZISP, N210–1936), same locality, dry slopes, 16.03.1936, A.A. Rikhter.

ETYMOLOGY. The species is named after the famous late Russian entomologist, Andrey A. Rikhter (1911–1950), who collected the type series.

DIAGNOSIS. This species can provisionally be placed to the *histrio* species group [*sensu* Szita & Logunov, 2008]. It can easily be distinguished from all *Philodromus* species by the presence of a dense transverse brush of brown bristles in front of spinnerets (Figs 13, 17–18), the unique feature amongst the described *Philodromus* species. Yet, each of the lateral guide pockets forms a sharp projection towards the median line (Fig. 11), the spermathecae are small and round (Fig. 12).

DISTRIBUTION. The type locality only.

DESCRIPTION. Both of the studied specimens are in poor condition, with most of their legs detached or missing. FEMALE (the holotype). *Measurements*. Carapace 1.98 long, 1.90 wide. Ocular area: MOA-WA 0.31, MOA-WP 0.40, MOA-L 0.39. Eyes and interdistances: AME 0.10, ALE 0.09, PME 0.08, PLE 0.09, AME-AME 0.13, AME-ALE 0.08, PME-PME 0.24, PME-PLE 0.16. Abdomen 3.75 long, 2.55 wide. Chelicera length 0.69. Clypeus height 0.26. Length of leg segments: I 3.10+1.10 (remaining segments are missing); leg II is absent; III 2.55+0.88+2.20+1.88+1.13; IV 3.35+0.98+2.80+2.42+1.23. *Leg spination* of leg I: Fm d and pr 0-1-1; remaining segments are missing. *Colouration*. The specimen is faded and shabby. Carapace brownish yellow, with a wide median yellow band running through the eye field to the clypeus. Maxilla, labium and chelicerae yellow, tinged with brownish. Sternum yellow, with small brownish speckles. Abdomen yellow, tinged with brownish. Dorsum with the well-marked cardiac mark followed by two longitudinal brownish stripes running towards the rear end; venter with a dense transverse brush of brown bristles in front of spinnerets (Figs 13, 17–18). All legs yellow, tinged with brownish. Palps are missing. Epigyne and spermathecae as in Figs 11–12.

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